 Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (currently amended) A method of generating embroidery data from image data, comprising:

automatically identifying a singular region from a plurality of regions associated with the image data;

generating occluded boundary information associated with the singular region, wherein the occluded boundary information represents a ~~joining~~merging of at least two regular regions of the plurality of regions and associated with the singular region into a single continuous area to be embroidered; and

generating the embroidery data based on the occluded boundary information.

2.   (original) A method as defined in claim 1, wherein the singular region is identified as being associated with at least one of a convergence and a termination of at least one of the plurality of regions.

3.   (original) A method as defined in claim 1, wherein the singular region is identified as being associated with a convergence of edges associated with the image data.

4.   (original) A method as defined in claim 1, wherein automatically identifying the singular region includes analyzing skeletal data.

5.   (original) A method as defined in claim 4, wherein the skeletal data is generated using a distance transform algorithm that processes edge contour data.

6.   (original) A method as defined in claim 1, wherein the image data is associated with a scanned image.

7.   (original) A method as defined in claim 1, wherein the image data includes a

bitmap.

8.   (currently amended) A system for generating embroidery data from image data,

comprising:

        a memory; and

        a processor coupled to the memory and programmed to:

                identify a singular region from a plurality of regions associated with the image

data;

                generate occluded boundary information associated with the singular region,

wherein the occluded boundary information represents a ~~joining~~merging of at least

two regular regions of the plurality of regions and associated with the singular region

into single continuous area to be embroidered; and

                generate the embroidery data based on the occluded boundary information.

9.   (original) A system as defined in claim 8, wherein the singular region is

identified as being associated with at least one of a convergence and a termination of

at least one of the plurality of regions.

10.   (original) A system as defined in claim 8, wherein the singular region is

identified as being associated with a convergence of edges associated with the image

data.

11.   (original) A system as defined in claim 8, wherein the processor is programmed

to identify the singular region by analyzing skeletal data.

12.   (original) A system as defined in claim 11, wherein the skeletal data is generated

using a distance transform algorithm that processes edge contour data.

13.   (original) A system as defined in claim 8, wherein the image data is associated

with a scanned image.

14.   (original) A system as defined in claim 8, wherein the image data includes a

bitmap.

15.   (currently amended) A machine readable medium having instructions stored

thereon that, when executed, cause a machine to:

    identify a singular region from a plurality of regions associated with image data;

    generate occluded boundary information associated with the singular region,

wherein the occluded boundary information represents a ~~joining~~merging of at least

two regular regions of the plurality of regions and associated with the singular region

into a single continuous area to be embroidered; and

    generate the embroidery data based on the occluded boundary information.

16.   (original) A machine readable medium as defined in claim 15, wherein the

singular region is identified as being associated with at least one of a convergence and

a termination of at least one of the plurality of regions.

17.   (original) A machine readable medium as defined in claim 15, wherein the

singular region is identified as being associated with a convergence of edges

associated with the image data.

18.   (original) A machine readable medium as defined in claim 15 having

instructions stored thereon that, when executed, cause the machine to identify the

singular region by analyzing skeletal data.

19.   (original) A machine readable medium as defined in claim 18, wherein the

skeletal data is generated using a distance transform algorithm that processes edge

contour data.

20.   (original) A machine readable medium as defined in claim 15, wherein the

image data is associated with a scanned image.

21.   (original) A machine readable medium as defined in claim 15, wherein the

image data includes a bitmap.

22.   (previously presented) A method as defined in claim 1, wherein generating the

embroidery data based on the occluded boundary information comprises generating

the embroidery data based on energy minimization information.

23.   (previously presented) A system as defined in claim 8, wherein the processor is

programmed to generate the embroidery data based on the occluded boundary

information using energy minimization information.

24.   (previously presented) A machine readable medium as defined in claim 15,

wherein the instructions, when executed, cause the machine to generate the

embroidery data based on the occluded boundary information using energy

minimization information.